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Ground Water Legislation in the Light of Experience in the Western States*

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The title selected for this article allows adequate room for wide maneuver and with that opportunity available, I should like to divide my material into three parts. First, I shall try to put the problem of legislation in its intellectual, as well as its community, setting with respect to Montana, New Mexico and some other western states. Secondly, I shall outline what might be considered the essentials of ground water legislation measured by the only test I know—utility. Lastly, I expect to leave you with some old questions that will continue to demand new and better answers.

THE INTELLECTUAL AND COMMUNITY SETTING

All ground water problems—indeed all resources problems—can be discussed in at least three different contexts:

1. The physical conditions in which they arise and the technological changes they promote. This is certainly a rich area for research and inquiry, which will have important effects on ground water development.

2. The community requirements and the economic consequences that follow from greater demands and uses. Here the policy of ground water mining,** for example, has many economic implications that require examination.

3. Existing institutional arrangements, particularly those of government and the law, which often lag behind technology and economics. Institutions in this context are merely man-made devices for alleviating or solving social problems. These institutions shape human values and influence human expectations. These arrangements obviously offer much for the citizen and the researcher to explore. The law's role in this social process is not always seen as clearly as it should be, whether in quarrels over the efficiency of the market mechanism, or the tensions between states, or the centripetal pull of a federalist system which holds together and leads the national community, or in the desire for local autonomy in local affairs. Another area of institutional pulls is found in the policies of private versus public investment in reclamation, power, pollution control, recreation and even in the institutional research of state universities.

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**[Ground water mining, to which allusion is made here and elsewhere, is the withdrawal of underground water from a source which is exhaustible because its recharge rate is negligible.—Ed.]

In the past we have been able, in the main, to discuss ground water problems in the different contexts I have mentioned, or within the various academic disciplines, without too much attention to interrelationships. Engineers spoke to engineers (and occasionally a lawyer in Congress), lawyers talked to economists only at high levels of abstraction, and I suppose economists talked only to God—or the Bureau of the Budget, which may have been for them the same thing. We are still carrying on the dialogue of abstractions and classifications with respect to water resources. While we are doing more empirical research we are also beginning to see clearly that law is a shaper of policy and attitudes. For example, we know that the "economic man" of the nineteenth century is a gross over-simplification who never existed. That we often consider the role of law *last* is part of our tradition (which still operates under a medieval criminal code and utilizes Biblical precedents in some areas of *ground* water law, especially in the eastern states). Despite these drawbacks, indications are that society is beginning to understand the affirmative aspects of law in the form of community intervention procedures. The trend in ground water legislation is the most recent and dramatic evidence. The Kansas statute of 1945 and its amendments,[1] and the Wyoming law of 1957[2] were *not* aimed primarily at restraining excessive withdrawals by present users, but were enacted to provide more rational methods of allocation and distribution so that more users in the future will have a secure share in what amounts to the community's whole future.

It is the fashion in some circles to say that we are entering a "new and critical period" with respect to ground water as well as other resources. I do not hold this view. Mankind's fate has always been in doubt and, when he has failed to see this, events have usually been resolved against him, as the empty cliff dwellings and abandoned Indian pueblos, the buried cities of the Middle East and the eroded valleys of our short grass western regions attest. Fortunately, we have begun to see the blind spots in our earlier thinking. The story of the farmer who told the young agricultural agent not to bother telling him about agricultural practices is no longer funny. For a farmer to admit today that he does not want any advice because, "Sonny, you can't tell me nothing about farming; I already wore out four farms," is a confession of ignorance and a rural tragedy. Today we see our society as a technological one rather than a ritualistic, traditional, precedent-bound non-scientific one. We in New Mexico respect and protect the Pueblo Indians who dance and pray for rain. But we also provide funds for the colleges to carry on research on climate. We all know, in Montana and New Mexico and everywhere, that we must make wiser use of the thin layer of earth on this planet—and plan for optimum use of some of it—if we want to avoid personal and national hardship for ourselves and our children whom, as Francis Bacon said, "We give as pledges to all eternity." This realization has made us see the three general areas of interest I have mentioned as complementary parts of the whole pattern of community inquiry and action. The minor problems of each

[1]KAN. GEN. STAT. ANN. 1949, §§ 82a-701 to -725, as amended KAN. GEN. STAT. ANN. §§ 82a-701 to -725 (Supp. 1959).
[2]WYO. STAT. ANN. 1957, §§ 41-181 to -147.

division of interest have accumulated beyond the point where they can be ignored. The habit of postponing community decisions—from day to day, year to year, generation to generation—cannot be endured when we know that man-made devices exist which can destroy all life. This old habit of postponing moral decisions (and that is what most community decisions are), which is the crisis of our time, has caught up with us. We are beginning to see the dangers in man's irrational and immoral attitudes toward his environment. We are developing new attitudes toward the resources of the earth—even toward *ground* waters. For we know that it will be too late to look for means to purify ground water aquifers after they have been contaminated. Society has the same stake in good drinking water in Montana and New Mexico as it does in pure air over Los Angeles. We cannot leave decisions on these matters to somebody else. These matters are everyone's responsibility. In a very real sense we are all breathing the same air and drinking from the same water hole—and both sources of supply are in danger.

Obviously people in Montana have thought deeply about these matters. Recent Water Resources Conferences are clear evidence of this. Past legislative efforts are further evidence. In the last four sessions of the Montana legislature, ground water proposals[3] were introduced and were defeated or withdrawn. Thirteen years ago the legislature passed an artesian well control statute.[4] The requirement that logs be kept on wells is an essential part of data gathering and should be a primary aspect of any resources legislation. New Mexico long ago found that out. We also found out that the only successful way to control drilling is to license drillers.[5] Other states have had the same experience.[6] The artesian well statute is a good legislative beginning. I would assume that from now on efforts here will be in one of two legislative directions:

1. Limited controls all over the state;
2. Tight controls in the specific areas where withdrawals are in danger and present rights are jeopardized.

The New Mexico experience with respect to the second alternative is illuminating. In 1927 a community decision was made to control artesian wells in the Roswell basin.[7] This decision was courageous, wise, and saved the economy of the region. I do not mean to imply that Roswell's problems are all solved. There continues to be an overdraft in the basin and also encroaching salt water intrusion. However, the area offers an example

[3]Statement of Fred Buck, State Engineer of Montana, *Hearings Before Select Committee on National Water Resources*, U. S. Senate, 86th Cong., 2nd Sess., Print No. 6, at 188 (1960).
[4]REVISED CODES OF MONTANA 1947, §§ 89-2901 to -2910 (Hereinafter REVISED CODES OF MONTANA are cited R.C.M. 1947).
[5]N.M. STAT. ANN. 1953, §§ 75-11-13 to -18.
[6]IDAHO CODE ANN., § 42-238 (Supp. 1959); UTAH CODE ANN. 1953, § 73-3-25.
[7]The 1927 legislation followed studies of the area. See Fiedler, *Report on Investigations of the Roswell Artesian Basin, Chaves and Eddy counties, New Mexico*, STATE ENGINEER OF &EW MEXICO SEVENTH BIENNIAL REPORT 21 (1926); Fiedler and Nye, *Ground Water Investigations of the Roswell Artesian Basin, New Mexico, August 1928*, STATE ENGINEER OF NEW MEXICO EIGHTH BIENNIAL REPORT (1928). The data were prepared before the legislation was enacted.

to Montana of what can be done to avoid permanent disaster. This is the background of the New Mexico legislation:

Artesian wells were drilled in the Roswell area as early as 1891.[8] By 1900 there were 153 wells in the region. After the Reclamation Act of 1902 there were larger scale developments. Then after World War I when auto engines became available for cheap power, there were artesian wells put down all over the basin. Pressures went down.[9] Pumping costs went up. By 1925 there were mortgage foreclosures by the thousands on good farm land. In fact, virtually the whole valley was in receivership. At this time not a dime could be borrowed on the lands. The mortgagees said no funds would be lent until there were controls on drilling. At this time the community leaders drafted the 1927 legislation.[10] This is an example of education by calamity that I hope can be avoided in Montana.

[8]Fiedler and Nye, note 7 *supra*, at 89.

[9]*Id.* at 99: "As the water level in the non-flowing wells fluctuates at about the same rate as in the flowing wells, a decline in artesian head also lowers the level of the water of the wells in the non-flowing belt. This causes a high pumping lift and the installation of larger power plants to produce the same quantity of water as was produced prior to the decline. With further decline the pumping lift eventually becomes prohibitive, and the property is finally abandoned. With the decline in head and the shrinkage of area artesian flow, wells that formerly flowed are in turn operated with pumps. This condition has been repeated many times and is most strikingly shown by the line of abandoned farms along the west side of the artesian area. It is therefore apparent that the aim of present water users should be to prevent further shrinkage in the size of the artesian area."

[10]*Id.* at 103-104: "The Legislative Assembly of the Territory of New Mexico passed in 1905 the first artesian-well law, which endeavored to regulate the use of water and prevent waste. The original law was repealed and new legislation passed in 1909, which was subsequently replaced by the laws of 1912 and 1925. Each succeeding law contained new regulations, which were required because of the changing conditions. Though these laws were never rigidly enforced, much good has resulted from even the partial enforcement. The regulations regarding the use of heavier casing have been particularly beneficial, and experience has shown that the resulting longer life of the wells has warranted the added initial cost. The better type of construction has also prevented a rapid increase in the underground waste and thereby saved large quantities of water for beneficial use.

"Though many additional data have been collected since the publication of the preliminary report, the essential conclusions contained therein have remained unchanged. The preliminary report was directed chiefly toward defining a conservation program for the immediate future and did not stress the many favorable aspects of the artesian water supply. The recommendations that were made have been largely carried out, and during the last two years much progress has been made toward a fuller utilization of the artesian water. A stricter enforcement of the law relative to surface waste has resulted in a marked decrease in useless draft, particularly during the winter. Permits for the drilling of artesian wells to supply tracts already under cultivation are being issued with the proviso that all defective wells on the property for which the permit is desired must be effectively repaired or sealed. The continued enforcement of this proviso will tend to prevent a progressive increase in waste from defective wells on the tracts now under cultivation, for otherwise new drilling would cause an additional draft upon the reservoir and be an encroachment on the water rights of other irrigators.

"In 1927, the State Legislature repealed certain sections of the law of 1925 and, by amendments to the act, transferred the supervision of the artesian wells to the State engineer. As a result of the recommendation contained in the preliminary report, an act was passed declaring waters in underground streams, artesian basins, reservoirs, and lakes to be public waters and subject to appropriation. Such appropriation of water was to be made in accordance with the rules and regulations of the State engineer under the existing laws of the State relating to appropriation and beneficial use of waters from surface streams. This law recognized as valid all appropriations of water which was being beneficially utilized at the time of its passage.

"Rules and regulations were promulgated by the State engineer under this act, and

The interpretation of the 1927 legislation requires a comment on two New Mexico decisions. *Yeo v. Tweedy*[11] tested the constitutionality of the 1927 act. For a purely technical reason (violation of the provision against incorporation of legislation by reference in the title) the statute was found defective. But all of the policy and real constitutional questions were answered favorably. The court upheld the doctrine of appropriation as applied to percolating ground waters and rejected entirely the claim that land owners had vested rights in unused waters under their lands. The court said that a statute of New Mexico which declared that "the common law as recognized in the United States shall be the rule of practice and decision," *was not controlling, in these words*:[12]

> But under that section we recognize as controlling only so much of the English common law as is applicable to our condition and circumstances. . . . [I]t is the spirit and the principle of the common law which is adopted by such wholesale statutes as ours rather than the letter or the particularly applied rule. *Katz v. Walkinshaw,* 141 Cal. 116, 70 P. 663, 74 P. 766. . . . That is why it is often said that our common law . . . is adaptable; that, while its principles operate continuously, changed conditions modify its rules; that, when the reason for the rule ceases, so should the rule cease; that what we adopted was a general system of principles rather than a hard and fast code.
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> So it is not necessarily true that the rules governing the use of percolating waters in England have been, up to 1927, the rules for the use of artesian waters in New Mexico, any more than it is true that the taking of water from the Rio Grande is subject to the limitations upon taking water from the Thames.

The court said nothing about the old Territorial case[13] decided in 1883 which involved the overflow from a spring to which two appropriators made claim. In that case the court *applied* prior appropriation but included this dictum which is not unlike some of the dicta in a 1912 Montana case:[14]

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in the later part of 1927 and early in 1928 declarations of water rights were filed by the water users. These declarations furnish a definite basis for the future regulation of the use of water. It has been shown previously that no new land can be brought under irrigation with artesian water drawn from the present known artesian aquifer without infringing on the water rights of the present water users. Further development for new areas has therefore been discouraged, and such applications for new wells are being refused. A continuation of this policy is strongly recommended unless at any time in the future it should be demonstrated that further development can be made without permanent depletion of the artesian supply and lowering of the artesian head."

The 1927 statute, Laws of New Mexico 1927, ch. 182, was replaced by Laws of New Mexico 1931, ch. 131 (N. M. STAT. ANN. 1953, §§ 75-11-1 to -10), after Yeo v. Tweedy, 34 N.M. 611, 286 Pac. 970 (1930).

[11]34 N.M. 611, 286 Pac. 970 (1930).

[12]Yeo v. Tweedy, 34 N.M. 611, 614, 286 Pac. 970, 972 (1930).

[13]Keeney v. Carillo, 2 N.M. 480 (1883).

[14]See Ryan v. Quinlan, 45 Mont. 521, 124 Pac. 512 (1912). In Rock Creek Ditch & Flume Co. v. Miller, 93 Mont. 248, 260, 17 P.2d 1074, 1077 (1933), the court referred to Ryan v. Quinlan and said: "Conceding that percolating waters are owned by and are subject to the control of the owner of land. . . ." Reference was also made to Spaulding v. Stone, 46 Mont. 483, 129 Pac. 327 (1912), which involved the question of whether the increased stream was due to percolation

> The law in regard to percolations is different, *ex necessitae,* for they 'spread themselves in every direction through the earth, and it is impossible to avoid disturbing them without relinquishing the enjoyment of land. . . .'

After *Yeo v. Tweedy,* the legislature promptly reenacted the statute in proper form[15] and it has remained the basic law of New Mexico. Not until 1950 was its constitutionality again tested. In *Bliss v. Dority*[16] it was contended that ground water controls violated vested property rights. The New Mexico Supreme Court rejected the contention, and the United States Supreme Court dismissed the appeal.[17] The New Mexico court pointed out that nearly 100,000 acres of land were involved in the Roswell area which was valued at over $25,000,000. The 1927 controls had in fact returned prosperity to a disaster area.

To date there are 17 legally declared basins in New Mexico. Some are rechargeable areas, others are mined areas. Technical regulations made by the State Engineer under legislative authorization have been upheld. In a recent case, *Spencer v. Bliss,*[18] the New Mexico Supreme Court said:

> The administration of the public waters of the state, especially the underground waters, is a task requiring expert scientific knowledge of hydrology of the highest order. The administration of surface waters alone, where the trained and experienced engineer may see and observe what he does, or should do, and what the agency he is administering is doing, is beset by difficulties enough. But when the administration is turned to underground waters the engineer's troubles are multiplied a hundredfold.

You are not to understand this comment as a claim that the New Mexico statute is a model of perfection, or that it is as good as it should be. Indeed, I think Montana can prepare a much better statute based on the experience of 30 years in other states. However, the New Mexico statute is an example of public control as applied to specific areas of the state. Although the statute has been amended many times there are still basic weaknesses in it. For example, it does not correlate surface and ground water rights. One consequence has been that ground water adjudications have proceeded under the surface water provisions which makes for an awkward and questionable process.[19]

But if imitation is the highest kind of flattery, then the New Mexico system, which has been followed elsewhere, is worth examining. However, I do not intend to review the statutes in detail. The State Engineer is the

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and seepage from a ditch. The court said there was insufficient evidence to support the contention. This of course is an early and rough example of the awareness of interrelationships between surface and ground supplies. See also Stone, *Montana and the Law of Groundwater,* MONT. BUR. OF MINES & GEOL. INFO. CIR. No. 26 at 33 (1958).

[15]See note 10, *supra.*

[16]55 N.M. 12, 225 P.2d 1007 (1950).

[17]341 U.S. 924 (1950).

[18]60 N.M. 16, 28, 287 P.2d 221, 228 (1955).

[19]See State *ex rel.* Reynolds v. Sharp, 66 N.M. 192, 344 P.2d 943 (1959).

chief administrative officer. His office goes back to 1905[20] in New Mexico so he is not a recent bureaucrat. He has real power and a considerable latitude of discretion. His power to declare a ground water basin is found in this statute:[21]

> The water of underground streams, channels, artesian basins, reservoirs, or lakes, having reasonably ascertainable boundaries, are hereby declared to be public waters and to belong to the public and to be subject to appropriation for beneficial use. . . .

The statute further provides for the method of appropriation. The court has held the method to be exclusive.[21a]

In 1953 the legislature amended the ground water statutes to provide that "all underground waters of the State of New Mexico are . . . public."[22] However, administrative controls and the jurisdiction of the State Engineer do not apply until a basin has been legally declared as provided by statute. This means that in New Mexico there are areas where ground waters are being used but no controls have been imposed. The rule of prior appropriation applies. Evidence of actual uses is usually filed with the State Engineer. Thus future questions of priority are obviated.

In summarizing the New Mexico experience we may say that the trend toward more public control has been through three methods: (1) application of the appropriation doctrine, (2) the declaration of ground water basins as provided by statute, and (3) the declaration in 1953 by the legislature that *all* ground waters of the state are public. The general trend in the other western states follows a similar pattern, as shown on Charts *A*, *B* and *C*.[23]

[20]Laws of New Mexico 1905, ch. 102, § 11. The new office carried compensation of $2,000 per annum.
[21]N. M. STAT. ANN. 1953, § 75-11-1.
[21a] Bliss v. Dority, 55 N.M. 12, 19, 225 P.2d 1007, 1011 (1950). See Hutchins, *The New Mexico Law of Water Rights*, STATE ENGINEER OF NEW MEXICO TECHNICAL REPORT No. 4 (In cooperation with U.S. Dept. of Agriculture) 49 (1955).
[22]N. M. STAT. ANN. 1953, § 75-11-19.
[23]These charts in modified form are taken from Clark, Public Control of Ground Waters in the Western States (the author's dissertation accepted by Yale University for the J.S.D. degree).

CHART A

THE TREND IN DOCTRINES APPLICABLE TO UNDERGROUND STREAMS 1939-1959

(Appropriation as Compared with Others)

In 1939		In 1959	
Appropriation Doctrine	Some Other	Appropriation Doctrine	Some Other
Arizona (statute)		Arizona	
California (statute)	(also riparian and correlative rights)	California	(also riparian and correlative rights)
Colorado (case)		Colorado	
Idaho (statute)		Idaho	
Kansas (statute east of 99th Meridian under 1891 statute)	(west of 99th Meridian under 1911 statute to overlaying owner)	Kansas (1945 statute)	
Montana (case)		Montana	
Nebraska (case and 1913 statute)	(also riparian)	Nebraska	(also riparian)
New Mexico (statute)		New Mexico	
	North Dakota (statute)	North Dakota (1955, 1957 statute)	
	Oklahoma	Oklahoma	
Oregon (case 1876 and statute east of Cascades)		Oregon	
South Dakota (case and inference)	(also riparian)	South Dakota	
	Texas		Texas
Utah (cases)		Utah	
Washington (case)	(also riparian)	Washington	
Wyoming (inference from constitution)		Wyoming	
Alaska (cases and inference)		Alaska	
	Hawaii (case and inference)		Hawaii (reasonable use under statute)

The 20-year interval shown here might be called the Modern Period of ground water legislation. Chart *A* shows that the *appropriation* doctrine with respect to "*underground streams*" was fully established by 1939. Except for the statutory clarifications in the Dakotas and Washington and the new Kansas legislation there has been little change in doctrine except to demonstrate clearly the trend toward appropriation. The transfer of *surface* water doctrine to *underground streams* was largely a judicial development.

CHART B

THE TREND IN DOCTRINES APPLICABLE TO PERCOLATING WATERS

1939-1959

(Appropriation as Compared with Three Other Doctrines)

In 1939

English or Common Law	Reasonable Use	Correlative Rights	Appropriation
Arizona		California (since 1902)	
Kansas			Colorado
Montana (dicta)			Idaho
	Nebraska		
Nevada			
New Mexico (before 1927)			New Mexico 1927 (within boundaries)
North Dakota	*North Dakota*		
	Oklahoma		
Oregon			Oregon after 1933 (within boundaries)
South Dakota			
Texas			
			Utah
Wyoming	Washington		
Alaska (dictum)			

In 1959

	Arizona	California	
			Colorado
			Idaho
			Kansas
Montana (dicta)			
	Nebraska		
			Nevada
			New Mexico
			North Dakota
			Oklahoma
			Oregon
			South Dakota
			Utah
Texas			Washington
Alaska (1953 dictum)			Wyoming

This chart shows that only two western states now appear to follow the English rule on withdrawals of *percolating water*, Montana and Texas. The Montana position is certainly not clear since the cases *do not* involve competing rights of two users of percolating ground water. Moreover, the Montana Constitution, art. III, § 15 ("all water") is ambiguous in its reference and could apply to ground water although the cases, especially Ryan v. Quinlan, 45 Mont. 521, 124 Pac. 512 (1912), might indicate otherwise.

CHART C

THE TREND IN LEGISLATIVE CONTROLS 1939-1959

Public Control Administrative Type Ground Water Statutes

STATE	1939	1959	ENACTED
Arizona	None	*Partial* control	1948
California	None	None (except reasonable use and non-tributary source credits)	1951, 1953, 1957
Colorado	None	None (ineffective statute with local application)	1953, 1957
Idaho	Alternative method only	Control	1951, 1953
Kansas	None	Control	1945, 1949
Montana	None	None (except registration for groundwater)	1947
Nebraska	None	None (except registration for groundwater)	1955
Nevada	Control	Control	1939
New Mexico	Control	Control	1927, 1931
North Dakota	None	Control	1955
Oklahoma	None	Control	1949
Oregon	Control	Control	1927, 1933, 1955
South Dakota	None	Control	1955
Texas	None	None (except local option districts)	1949
Utah	Control	Control	1935
Washington	None	Control	1945
Wyoming	None	Control	1947, 1959
Alaska	None	None	
Hawaii	None (except reasonable use in Honolulu)	Control	1959

This chart gives a rough picture of legislation in the past 20 years indicating the trend toward public control through the administrative process. This legislation on the whole has favored the *appropriation* doctrine with respect to *percolating waters*.

CONSIDERATIONS IN FRAMING GROUND WATER LEGISLATION

After this survey of trends, purposes and background, it is now time to examine the essentials of any ground water legislation.

What Doctrine Should Apply?

Notice the four doctrines on Chart *B*. Appropriation has become alost universal. "Reasonable use" is a happy phrase, but means nothing in the abstract. Just what it means in Arizona is not clear.[24] "Correlative rights" is merely a variation that adds further complications. The English rule of unlimited use is obsolete. I will say more about it under the topic of constitutional questions.

Appropriation is not a panacea. In the West it simplifies matters because it lends itself to a pattern of uniform control for all waters, surface and ground. In practice, in many areas the doctrine of appropriation today is in fact a licensing system.[25] This is the only feasible method for withdrawing waters in a non-renewable basin. Appropriation is adaptable. It has lived through several metamorphoses and is still vigorous.[26] The system of licensing done in the name of appropriation keeps the vocabulary and fits well into the administrative process and yet squares with the physical facts of supply. The airy abstractions of "rights in perpetuity" in a mined ground water basin have no meaning.

Constitutional Questions

There are several constitutional questions to anticipate:

1. Should the state rely on public ownership, as the West has with respect to *surface* waters, on the police power, or both?

Kansas employs both.[27] The Montana artesian well statute adopts the police power theory.[28] The Montana Constitution, article III, section 15, refers to "all water" of the state as public, although no specific mention is made of *ground* water. That provision is much stronger than the one in the New Mexico Constitution, article XVI, section 2, which refers only to waters of streams "perennial or torrential." And yet New Mexico has, as we have seen, applied appropriation to *ground* waters for over 30 years.

2. With respect to percolating waters, the courts are always confronted with the possibility of an unrealistic and unworkable definition of "vested rights." Is this necessary?

Let us contrast the definitions in Texas and Kansas. In Texas the old English landowner's unlimited right of withdrawals is still recognized, sub-

[24]See Bristor v. Cheatham, 75 Ariz. 227, 255 P.2d 173 (1953); Southeast Eng'r. Co. v. Ernst, 79 Ariz. 403, 291 P.2d 764 (1955); State v. Anway, 87 Ariz. 206, 349 P.2d 774 (1960).

[25]See Harris, *Water Allocation Under the Appropriation Doctrine in the Lea County Underground Basin, New Mexico*, THE LAW OF WATER ALLOCATION IN THE EASTERN UNITED STATES (Haber & Bergen ed. 1958).

[26]See Clark, *New Water Law Problems and Old Public Law Principles*, 32 ROCKY MT. L. REV. 437 (1960).

[27]KAN. GEN. STAT. ANN. 1949, § 82a-702; see also KAN. GEN. STAT. ANN. 1949, §§ 42-307, 401 on artesian wells and appropriation.

[28]R.C.M. 1947, §§ 89-2901 to -2910.

ject only to waste and negligence rules.[29] In other words, the landowner can withdraw water under his neighbor's land as well as his own and this right exists in a vacuum; it exists without beneficial use.

Kansas has defined a "vested right" as one that has been *used* beneficially or will be exercised by a date fixed by the legislation.[30] In upholding the statute, the Kansas court said they would not recognize an unused right as a vested right.[31] This makes clear law and good sense. It is particularly appropriate to the states of the West in which the use of water has always created the right. Montana has long followed this doctrine with respect to *surface* waters. The courts hold that the appropriator does not own the water but only the right to its use.[32] The old analogies will of course creep into the discussion. For example, it is too easy to think of water as a mineral in place—which it certainly is not since it is moving albeit slowly. The Pennsylvania Supreme Court in an early case[33] held that percolating water was a "mineral *ferae naturae*," *i.e.*, analogous to a wild animal until captured and reduced to possession. But even by this far-fetched analogy the Kansas court would be entirely right in stating that the right springs from the actual beneficial use and not from the overlying ownership of land.

Public Versus Private Lands

One obvious problem is what distinction, if any, must be made between private and public lands. Current interest centers on the United States Supreme Court ruling in the Pelton Dam decision[34] and upon a federal district court case applying the rule to ground waters.[35]

Key Provisions Found in Recent Statutes

Some of the key provisions found in the recently enacted ground water statutes may be listed briefly as follows:[36]

1. Declare that percolating waters, or *all* waters in the state, are public and subject to appropriation for beneficial uses.

2. Preserve all existing rights or actual beneficial uses or make such rights determinable within a period of time.

3. Establish a control board or commission and a chief administrative officer, usually the State Engineer.

[29]See City of Corpus Christi v. City of Pleasanton, 154 Tex. 289, 276 S.W.2d 798 (1955), reaffirming the holding of Houston & Texas Ry. v. East, 98 Tex. 146, 81 S.W.2d 279 (1904); see also Greenhill and Gee, *Ownership of Ground Water in Texas: The East Case Reconsidered*, 33 TEX. L. REV. 621 (1955).
[30]KAN. GEN. STAT. ANN. § 82a-701 (Supp. 1959).
[31]State *ex rel.* Emery v. Knapp, 167 Kan. 546, 207 P.2d 440 (1949). The constitutionality of the Kansas statute was upheld in Baumann v. Smrha, 145 F. Supp. 617, *aff'd.* 352 U.S. 863 (1956). See also Williams v. City of Wichita, 279 F.2d 375 (10th Cir. 1960).
[32]Rock Creek Ditch & Flume Co. v. Miller, 93 Mont. 248, 17 P.2d 1074 (1933); Mettler v. Ames Realty Co., 61 Mont. 152, 201 Pac. 702 (1921).
[33]Westmoreland & Cambria Nat. Gas Co. v. De Witt, 130 Pa. 235, 18 Atl. 724 (1889).
[34]Federal Power Comm'n. v. Oregon, 349 U. S. 435 (1955).
[35]Nevada v. United States, 165 F. Supp. 600 (1958), *Aff'd* 279 F.2d 699 (1960).
[36]The summary of the essentials of ground water legislation is taken from the author's dissertation. See note 22 *supra*, at 293.

4. Prescribe administrative procedures for acquiring a "permit" to drill wells and for approval of the transfer of location of a well or the character of the use.

5. Require evidence of actual beneficial use before issuance of the license or the final form of evidence of the water right, by which evidence the date of its priority is fixed.

6. Require data reports on drilling conditions to be furnished by the driller.

7. Require reports periodically, or when requested by the state, on the actual uses by the landowner or the well user.

8. Exempt certain uses from the statute, typically, residential or culinary uses or kitchen garden irrigation.

9. Terminate rights for non-use after a prescribed time.

10. Adjudication of ground water claims. Often these are found in the general water law statutes, portions of which have been incorporated into the new legislation.

11. Provide penal sanctions for violations.

12. Provide for appeals to the courts.

Recommended Improvements

Some of the recommended improvements suggested for any ground water legislation are given in detail below:[87]

Recognition of Far-Reaching Public Interests

Public interests may be divided into three aspects for examination: (1) the concept of efficiency, *i.e.*, maximum economic returns to the community; (2) the concept of indirect benefits, as for example, from such programs as flood control, navigation and recreation improvements which provide no direct economic returns but enhance human values; (3) institutional efficiency or the management of choices between private and public investment or local and national participation in order to accomplish specific results. These facets of the public interest may have limited application in *ground* water resources development, but they are inextricably related to the larger picture of all water resources goals.

Declaration of the Public Interest in Water Resources

As a corollary to the recognition of the varied aspects of the public interest, the new legislation should declare all waters to be public, subject to rights of user. At the same time all existing uses and claims should be protected. Any over-all policy or program of maximum use cannot protect claims to unused sources. This is the view adopted in Kansas. Such a view should be accepted in the West on the basis of a long tradition of public consciousness and the constitutional recognition of water as a public good.

[87] *Id.* at 393-98.

Surface and Ground Water Relationship

All sources of water should be related in the same institutional and administrative framework. When the waters are physically interconnected, this will mean more efficient use, wiser planning and improved protection to existing uses. Where the waters are not physically and hydrologically related, there will obviously be advantages as a consequence of a new institutional framework that operates on that scientific basis.

Policy Announcing Commission or Board of Control

A commission or board of control directly responsible to the executive and operating within a broad legislative mandate should be the principal policy making group, functioning as the administrative extension of the legislature and the representative of community perspectives. A technical staff under the direction of an executive engineer with adequate discretionary powers should be provided.

Flexibility in Outlook for Storage, Recharge and Pollution Control

The new legislation must contemplate future decision making in the area of underground storage, artificial recharge, salt water intrusion and pollution. Desalinization measures and climate control must also be within the contemplated legislation. These provisions should be broad enough to provide water resources management that will allow credits for surface uses against ground uses and vice versa, and will relate hydrologically the various uses and supplies. There should be provision for land classification as the basis for granting licenses and for encouraging sound conservation practices.

Simplified Determination or Adjudication of Claims

Rights *vis-a-vis* the state present one part of the problem of claims handling that should be simplified. Within the administrative process there must be designed a method for establishing claims. The decision of the executive engineer on the rejection or granting of an application or license should be appealable to the board of control within a specified period. Thereafter it should become final. Decisions of the commission should be appealable to the courts only on questions of law. In this same framework the determination of groups or classes of rights as against each other should be provided through a simplified judicial procedure which will draw on the technical services of the administrator and the state planning agency. The "stream system" adjudication now in use is not adequate to assure security of rights nor to allocate supplies from a common source. All established rights should be adjudicated promptly after passage of the legislation. Thereafter the rights of users acquired under a licensing system should be fixed by the terms of the license. The license should be related to the period of amortization for investments connected with water or land use. In areas of ground water mining no other system of rights is feasible. The maximum period for any license should not be more than 40 years. License renewal procedures should be provided.

Trends Toward Higher or Optimum Uses

The legislation must accept the trend in the direction of higher economic priorities and the effects of the market mechanism. This should be done without fixing schedules of preferences. Preferential uses may continue to be recognized but the growing diversity of demands should be allowed to promote changes within a flexible legislative outline so that more desirable uses may be encouraged, or at least not discouraged.

Centralized Administration

Central control is accepted by a majority of western states. There are other advantages than control itself. For example, research data and technological services can be provided without waste or duplication. However, any improvement in the legislation should require closer and formal cooperation with long-range planning agencies and other resources agencies of the state.

Inventory, Measurements of Supply, and Sanctions

Continuous inventory procedures should be developed, and control devices such as metering, credits for use of alternate supply and recharge credits should be contemplated by the new legislation. Sanctions should be realistic and readily applicable to prevent waste and policy-prohibited uses.

Judicial Review

The principle of judicial review should remain. However, the present de novo opportunities should be minimized. The changes suggested here would make them unnecessary. Questions on review should be limited to law, policy and reasonableness.

Chance of Satisfactory Legislation in Montana

With these standards in mind, what are Montana's chances of devising sensible, fair and efficient legislation? The general answer would seem to be, very good. The absence of bad or ineffective ground water legislation, such as the kind now in existence in Colorado, is a positive advantage. The few decided cases are no major obstacle. These cases do not decide rights as between two *ground* water users.[88] But more specifically the following strongly favor the chances of preparing and enacting good legislation:

1. The Montana Constitution, article III, section 15, refers to "all water" of the state. A Montana statute provides that "water of any river, stream, ravine, coulee, *spring,* lake, or *other natural source of supply* may be acquired by appropriation."[89] Decisions have settled the rule that appropriation applies to *surface* waters in Montana. In 1921 the Montana Supreme Court in *Mettler v. Ames Realty Co.* concluded "that the common law doctrine of riparian rights has never prevailed in Montana since . . . 1865; *that it is unsuited to the conditions here.*"[90] This view was sub-

[88]See Ryan v. Quinlan, 45 Mont. 521, 124 Pac. 512 (1912); Rock Creek Ditch & Flume Co. v. Miller, 93 Mont. 248, 17 P.2d 1074 (1933); Woodward v. Perkins, 116 Mont. 46, 147 P.2d 1016 (1944); Perkins v. Kramer, 121 Mont. 595, 198 P.2d 475 (1948); Stone, *Improving Montana Water Law,* 20 MONT. L. REV. 60 (1958).

[89]R.C.M. 1947, § 89-801 (emphasis added).

[90]61 Mont. 152, 202 Pac. 402 (1921) (emphasis added).

sequently reaffirmed.[41] Thus, the constitution, the statutes and the decisions appear to pave the way for a clear legislative expression of a simple and uniform rule of appropriation with respect to "all water" in Montana.

2. The existence of the State Water Conservation Board,[42] which has broad powers and can be given others, is a decided advantage.

3. The presence of a State Planning Office,[43] which is charged with natural resources inquiries and particular matters such as municipal water supply, gives another advantage.

4. Existing public health legislation[44] and the pollution control act[45] are further assets in a program of ground water legislation. In the pollution control act "waters of the state" are defined to include "surface and underground waters" for purposes of the act and point in the direction of necessary interrelationship of the two sources. The act also contains a clear statement of policy.

5. The Artesian Well Act of 1947[46] is of course a good beginning. The provisions for data gathering and the use of the police power to prevent waste need no coment. The policy statement in the act should be particularly helpful:[47]

> It is the intention of the legislature, by the exercise of the police powers of the state, to prevent waste of underground waters and pollution and contamination of the underground supply, and provide for the administration of the provisions of this act by regulations as may be necessary for the proper and orderly execution of the powers conferred by this act.

6. The studies and recommendations of the annual Water Resources Conferences[48] are an obvious advantage.

FUNDAMENTAL QUESTIONS

Now to leave you with some old questions. The first query is about the primary objective of any water resources legislation. Obviously, it must be the enhancement of human values. We know that these values are not all monetary or economic. Professor Albert W. Stone explained this before the Senate Select Committee hearing at Missoula:[49]

[41]Wallace v. Goldberg, 72 Mont. 234, 231 Pac. 56 (1925).
[42]R.C.M. 1947, § 89-103.
[43]R.C.M. 1947, §§ 89-301 to -309.
[44]R.C.M. 1947, §§ 69-101 to -127.
[45]R.C.M. 1947, §§ 69-1301 to -1325.
[46]R.C.M. 1947, §§ 89-2901 to -2910; Stone, *Montana and the Law of Groundwater*, MONT. BUR. MINES & GEOL. INFO. CIR. No. 26 at 33 (1958).
[47]R.C.M. 1947, § 89-2908.
[48]Stone, *supra* note 38. See Thomas, "Groundwater and the Law," paper given before Fourth Annual Water Resources Conference (mimeo. 1959); Groff, *The Ground Water Situation in Montana*, MONT. BUR. MINES & GEOL. INFO. CIR. No. 26 at 1 (1958).
[49]*Hearings Before Select Committee on National Water Resources*, United States Senate, 86th Cong. 1st Sess., Billings, Montana, 1959, Missoula, Montana, 1959, Part 3, at 450 (1960). The scholarly material produced by this committee in the form of Committee Prints is invaluable. See especially Committee Prints Nos. 6 and 28.

> Among the more common goals are: encouragement of industry; increasing population; protection of fish and wildlife; and increasing irrigated acreage.
>
> Actually, each of these ideas, plans and schemes has a more ultimate goal, often left unspoken. It is the improvement of the welfare of people. Regardless of how altruistic any plan may have been in the beginning, there is a real danger in leaving the ultimate goal unspoken. We get to thinking of industry, population, scenery, fish and wildlife, agricultural acreage and other such things as ends in themselves. Very often this works out well enough. But the danger is in losing sight of the real objective, and letting the means of accomplishing them become the ends in themselves. Unless this tendency is recognized, we very well may develop our water resources in ways that will not ultimately promote a better way of life for our people, whether nationally, regionally, or locally.

It is easy to see the goals of one group but not so simple to synthesize the aims of many groups. This is largely the function of politics and law. In the process, the "public interest" often receives a high sounding definition but meaningless reference. It takes scarcely any effort and very little thought to talk about "my rights" or "your rights." It is much harder to examine our respective and often reciprocal "duties." Indeed, some would say that the less said about "rights" and "duties" the better, for this may lead us back to definitions and questions about the origins of "rights" and "duties." We may even ask "Are we born with rights and duties, including property rights, or do we acquire them from the organized community—local, state and national?" Here we sometimes have to remind ourselves that property rights were made for man, not man for property rights.[50]

These may appear to be unnecessarily speculative questions with which to close this discussion of ground water legislation. However, every thinking person must be aware that, whether or not we consciously frame or ask these questions, we all act on the basis of assumed answers to these and

[50]The divergent views often expressed in this process remind me of this pair of poems by Professor Kenneth Boulding of the University of Michigan:

A CONSERVATIONIST'S LAMENT

The world is finite, resources are scarce,
Things are bad and will get worse.
Coal is burned and gas exploded,
Forests cut and soils eroded.
Wells are dry and air's polluted,
Dust is blowing, trees uprooted.
Oil is going, ores depleted,
Drains receive what is excreted.
Land is sinking, seas are rising,
Man is far too enterprising.
Fire will rage with Man to fan it,
Soon we'll have a plundered planet.
People breed like fertile rabbits,
People have disgusting habits.
Moral:
The evolutionary plan
Went astray by evolving Man.

similarly disturbing questions. These questions are disturbing because they go to the fundamentals underlying our choices, our values and our objectives. They assume the method by which our society formulates policies, makes choices among social objectives and enacts laws, including water laws.

THE TECHNOLOGIST'S REPLY

Man's potential is quite terrific,
You can't go back to the Neolithic.
The cream is there for us to skim it,
Knowledge is power, and the sky's the limit.
Every mouth has hands to feed it,
Food is found when the people need it.
All we need is found in granite
Once we have the man to plan it.
Yeast and algae give us meat,
Soil is almost obsolete.
Men can grow to pastures greener
Till all the earth is Pasadena.
Moral:
Man's a nuisance, Man's a crackpot,
But only Man can hit the jackpot.

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